ABSTRACT
        The goal of the Connecticut Special Education
Computer Network Project is to develop and field test a special
education computer network with schools and school districts within
the state. SpecialNet, a national computer network of special
educators, will be used as the means to achieve this goal. The
project, it is hoped, will help to enhance communication among
schools, the State Department of Education, and local districts, thus
improving the delivery of services to handicapped students. Project
activities include implementing a state electronic bulletin board on
SpecialNet, developing an accompanying handbook, stimulating
statewide interest in the network, evaluating equipment needs, and
training school district and State Department staff. (CL)

ESTABLISHING A COMPUTER NETWORK FOR CONNECTICU

CHAUNCY N. RUCHER
FRANCIS X. ARCHAMBAULT, JR.
TOM B. GILLUNG

ABSTRACT

This presentation describes the activities of the Connecticut Special Education Computer Network Project (ConnNET). The overall goal of this project is to develop and field test a special education computer network with schools and school districts within Connecticut. SpecialNet, a national computer network of special educators, will serve as the backbone of this network. We believe that through this project we can enhance communications, between schools, the State Department, and local districts to provide a positive effect on the quality of programs delivered to handicapped children. To ensure that this occurs, the project will develop a Connecticut bulletin board on SpecialNet, develop and disseminate a Connecticut SpecialNet handbook, stimulate statewide interest in SpecialNet, evaluate telecommunications equipment needs of school districts, select school districts for SpecialNet subscriptions and training, train local school district and State Department staff in SpecialNet, and develop a technical assistance plan for the state to use in continuing the Connecticut Special Education Computer Network.

The microcomputer revolution is having dramatic and irreversible effects on the way we conduct the business of education. In fact, the results of a recently completed nationwide survey by Market Data Retrieval (1984) suggest that over 55,000 U.S. public schools now use microcomputers in instruction, more than double the number using computers the previous year.

A Report issued by the Connecticut State Department of Education in 1983 reveals that 54 percent of Connecticut school districts have microcomputers available at the elementary and junior high levels, and 62 percent of the district have them available at the high school level (Glass).

More recently, a Connecticut needs assessment conducted by Connecticut Special Education Network for Software Evaluation (ConnSENSE) reveals that 87 percent of the school districts responding have one or more computers available for use by special education students. Of those districts, 76 percent have one or more Apples, 39 percent have one or more Radio Shacks, and 26 percent have one or more Commodores. While these figures are encouraging, some districts have only a few computers available for the entire system while others have over 200 and still other districts have no computers available for either instruction or management uses.

The ConnSENSE needs assessment revealed some other interesting facts. Microcomputers are now being most used for computer assisted instruction (63%) and word processing (43%). The respondents feel that in the future they would like to use microcomputers more for IEP development (60%), record keeping (57%), budgeting

BEST COPY AVAILABLE

2

(38%), and SpecialNet (32%) (a national special education computer network). When asked to suggest topics for future issues of the ConnSENSE Bulletin, 43 percent of the respondents suggested the topic of networking. Thus, while we are beginning to see computers used more often for special education instruction, we also see a definite interest in, and a need for, more administrative applications of computers and computer networking. This latter issue, the interest in computer networking, is the focus of the ConnNET project.

Project Design

General Design

The overall goal of this project is to develop and field test a special education computer network with schools and school districts in Connecticut. SpecialNet will be used as the means to achieve this goal. The realization of this goal should enhance communications among schools and between the State Department and local school districts to such a degree that it will have positive effects on the quality of programs for handicapped children in Connecticut. To achieve this overall goal, the project will develop a Connecticut bulletin board on SpecialNet, develop and disseminate a Connecticut SpecialNet handbook, stimulate statewide interest in SpecialNet, evaluate equipment needs of school districts, select school districts for SpecialNet subscriptions and training, train local school district and State Department staff in SpecialNet, and develop a technical assistance plan for the State to use in continuing ConnNET activities.

Implement a Connecticut Bulletin Board on SpecialNet

The first activity is to implement a SpecialNet bulletin board for Connecticut. As this should provide an added incentive for Connecticut school districts to join SpecialNet, work relating to this activity began as soon as

the project was funded. Joining SpecialNet opens a vast national information base to the local school districts. The Connecticut bulletin board will provide the opportunity for instant communications between Connecticut school districts and the State Department of Education, as well as among the districts themselves. The Connecticut bulletin board will function like a State Department of Education electronic newsletter. Information of particular importance to Connecticut special education administrators will be "on line" instantly. It will also provide a vehicle for educational leaders to exchange ideas on pertinent issues and, as such, it will be a powerful communication medium.

SpecialNet recommends several steps for setting up a statewide bulletin board: (a) identify the audience, (b) outline the information base, (c) decide on the type of bulletin board, and (d) arrange for the administration of the board.

Identify Audience. The general audience for the ConnNet Project consists of the State Department of Education, all Connecticut local school districts, private schools and centers of various types, regional education service centers (RESCs), the Connecticut Special Education Resource Center (SERC), and colleges and universities across the State. The primary audience for this phase of the project will be the local school districts and the State Department of Education. We will select at least 30 local school districts for subscriptions to SpecialNet. The selection process is explained below.

Information Base. The Connecticut bulletin board will begin as an all purpose board. That is, this board will contain a wide variety of topics rather than concentrate on a single theme. In time, a second or third bulletin board might be added.
Examples of items added by the

project might include:

> State Department of Education memos
> New State policy/procedures
> State Department budget updates
> Status of bills in the State Legislature
> Promising practices within the state
> Notice of meetings/conferences
> Lists of resources in various locations
> Recommended special Education courseware
> Recommended management software

Local school districts might also add items in the categories listed above as well as the following:

> Examples of successful administrative strategies
> Position Announcements
> Requests for information
> Requests for technical assistance

It is important to note that ConnNET, State Department, and local school district staffs may contribute information under any of these categories, or others as deemed important.

Type of Bulletin Board. A bulletin board can be "open" so that any Special-Net user can access it and add items to it, open only to Connecticut users, or closed so that information can only be added by the project staff. The ConnNET staff and SpecialNet consultants from National Systems Management, Inc. (NSMI) believe that the bulletin board should be open, at least at this point, to encourage the greatest number of users and contributions.

Administration of Bulletin Board. The project, as described below, will train State Department personnel in the use of SpecialNet, and provide technical assistance and training so that when the project concludes the State Department will be able to administer the network. However,

to start, the bulletin board will be administered by the ConnNET staff at the University of Connecticut. The University will provide an Apple IIe microcomputer with two disk drives and a monitor, plus a Novation 212 AppleCat Modem. The project staff will work in very close cooperation with the State Department, since much of the bulletin board content will emanate from Hartford.

Develop a Connecticut SpecialNet Handbook

After several discussions with Gary Snodgrass, President of NSMI, it was decided that to develop a SpecialNet handbook unique to Connecticut would be both unnecessary and overly costly. Instead, the project will use the handbook that Mr. Snodgrass and his staff have already developed and used successfully in several states. Naturally, we plan to modify this document to meet the specific needs of Connecticut and this project. In particular, we will include an up-to-date listing of Connecticut SpecialNet users and a description of policies regarding the use of the Connecticut bulletin board. The project staff will supply these unique aspects and will purchase the SpecialNet handbook from NSMI for use in the project.

Stimulate Statewide Interest in SpecialNET

The ConnSENSE project has encouraged Connecticut school districts to subscribe to SpecialNet. When ConnSENSE joined SpecialNet the only other subcribers were the Bureau of Student Services and one of the Regional Education Services Centers. As of August, 1984, a total of seven agencies have joined SpecialNet, and others are considering this option. In fact, 32 percent of the respondents to the ConnSENSE computer needs assessment felt that they would like to join SpecialNet in the future. There

4

is interest in SpecialNet, but this interest needs to be stimulated. The ConnNet project should do that by providing SpecialNet subscriptions to at least 30 Connecticut school districts. Further, the project will train personnel from these school districts, the State Department, and others in the use of SpecialNET.

The ConnNET project was announced during the summer of 1984 in the ConnSENSE Bulletin and at "ConnSENSE '84," a one day conference for special educators held on July 18, 1984, at the University of Connecticut. Also, it will be announced soon in a Connecticut Special Education Resource Center (SERC) mailing. Past experience has shown that a SERC mailing is likely to generate enormous support for such a project. The Bulletin goes out to over 900 special educators interested in computers and special education, including all special education administrators. This represents one of the largest computer user groups in Connecticut.

Evaluate Equipment Needs

A telecommunications equipment questionnaire will be sent out to all interested school districts. The questionnaire is designed to determine equipment needs to enable the schools to link to specialNet. The questionnaire will be returned to ConnNet and analyzed by the NSMI staff. Individual recommendations for each school district will be made in terms of the most appropriate and cost effective way to join the Network. This analysis will be completed before the first training session so that the results can be discussed with the participants at that time.

Select School Districts

We believe that project publicity will generate a sufficient number of potential subscribers to SpecialNet. The project will develop a mechanism for selecting school districts in a fair and equitable manner. These selection criteria will be determined

by an advisory committee. Besides the ConnNET staff, this committee will be made up of the State Department of Education project officer, a representative of the Connecticut Association of Supervisors of Instruction in Special Education (CASISE), the Connecticut Association of Pupil Personnel Administrators (CAPPA), a Regional Education Service Center, SERC, and a Special Education Teacher.

Train School District and State Department Staffs

The project will train staff members from the selected school districts, plus designated State Department of Education personnel. In addition to the primary group of 30 school districts selected for this project, school districts that have joined SpecialNet in other ways will also be eligible for training.

The training sessions will be conducted in conjunction with National Systems Management, Inc. of Washington, D.C. NSMI, which operates the SpecialNet system, has conducted similar training in several states with success. The ConnNET staff will work closely with NSMI and make all the arrangements for the workshops.

There will be three separate training sessions for all users corresponding roughly to beginning, intermediate, and advanced training. These will be spaced appropriately to allow users time to practice their skills between sessions.

The remainder of this section contains a brief description of the training. Since the major focus of this project is telecommunications, or computer networking, electronic mail, and electronic bulletin boards, it seemed only fitting to use such technology in developing this paper. What follows was relayed via SpecialNet form NSMI in Washington, D.C. to the project staff at the University of Connecticut. It was down loaded into the memory of the project modem, read into an Applewriter file, modified

slightly and then relayed via telephone lines to the University mainframe and into this paper.

NSMI has considerable experience in providing training for SpecialNet users. Over a period of three years, NSMI has conducted hundreds of training sessions in every part of the United States, including training in Alaska, Hawaii and the Virgin Islands. A full-time Director of Training is employed to provide this service. The Director of Training calls upon NSMI technical and professional staff to assist in the provision of very high quality on-site training programs. Slide presentations, overhead transparencies and video tapes have been developed to make the training sessions informative and entertaining.

Training is divided into three parts:

- Orientation & Beginning Training
- Intermediate Training
- Advanced Training

SpecialNet is very easy to use. In fact, most system users are self-trained. However, we have found that formal training helps to assure effective, cost-efficient system utilization. Self-Training manuals are provided for each user. These include:
- Introduction to SpecialNet: Basic User Training
- Introduction to SpecialNet: Advanced User Training
- Introduction to SpecialNet: Editing
- Quick Reference Card

Orientation and Beginning Training

The full day orientation and beginning training session is devoted to developing an understanding of the communication network. It covers system capabilities, equipment procurements, and potential applications from a laymen's perspective. As described above, a questionnaire designed to determine equipment needs or modifications to existing equipment is distributed

to participants before the meeting. The questionnaire will be completed and analyzed by NSMI prior to the meeting, so that any recommendations for equipment modifications can be developed and discussed with participants during the meeting.

Intermediate Training

The Intermediate training usually occurs approximately 6-8 weeks after the Beginning training. This allows users time to practice as well as become familiar with the electronic mail system. It is important, though, not to let too much time lapse between the two sessions or users may become frustrated by not having the opportunity to deal with questions or problems.

Advanced Training

The advanced training is suggested for SpecialNet users with microcomputers or word processors. The focus of this session will be on down loading of text from SpecialNet Bulletin Boards as well as batch sending of messages.

Develop a Technical Assistance Plan for the State

The Connecticut bulletin board will provide the major vehicle for the state to provide technical assistance to local school districts. In addition to technical information provided in the bulletin board, users will be able to correspond directly with the state Department via SpecialNet. The ConnNET staff will develop a model for providing this technical assistance during the project, with the State Department assuming these responsibilities after the completion of this project.

Input for the technical assistance plan will come from the project staff, NSMI staff, and the project advisory committee. A draft of the plan will be written by the staff and reviewed

by the advisory committee. Revisions
will be made on the basis of this
feedback and the plan will then be
included in the final report.

REFERENCES

Glass, E. M. (1983). <u>Instructional
use of computers in Connecticut
public schools</u>. Hartford: Connecticut
State Department of Education.

Market Data Retrieval. (1984). <u>Micro-
computers in schools, 1983-84:
A comprehensive survey and analysis</u>.
Westport, CT.